

PRODUCT SUMMARY

KODAK KAC-9617 IMAGE SENSOR

648 (H) X 488 (V) MONOCHROME CMOS IMAGE SENSOR

DESCRIPTION

The KODAK KAC-9617 Image Sensor is a high performance, low power, 1/3" VGA CMOS Active Pixel Sensor capable of capturing grey-scale digital still or motion images and converting them to a digital data stream.

In addition to the active pixel array, an on-chip 12 bit A/D converter, fixed pattern noise elimination circuits, a video gain and separate color gain are provided. Furthermore, an integrated programmable smart timing and control circuit allows the user maximum flexibility in adjusting integration time, active window size, gain and frame rate. Various control, timing and power modes are also provided.

The excellent linear dynamic range of the sensor can be extended to above 100dB by programming a non-linear response curve that matches the response of the human eye.

FEATURES

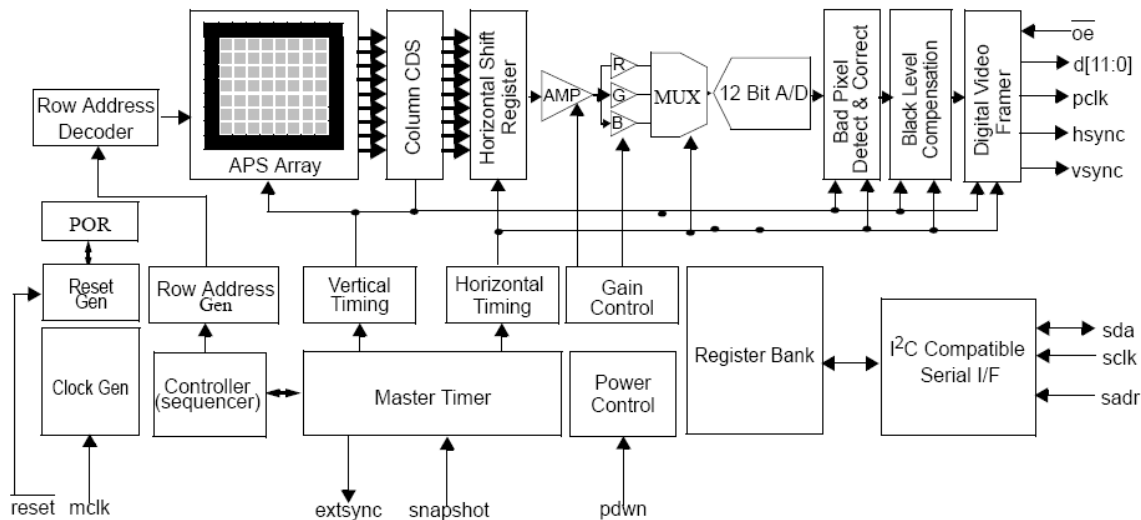
- Video or snapshot operations
- Progressive scan and interlace read out modes.
- Programmable pixel clock, inter-frame and inter-line delays.
- Programmable partial or full frame integration, gain and individual color gain, and digital video response curve
- Horizontal & vertical sub-sampling (2:1 & 4:2)
- External snapshot trigger & event synchronization signals
- Auto black level compensation
- Flexible digital video read-out
- I²C compatible serial interface
- Power on reset & power down mode

Parameter	Typical Value
Array Format	
Total	664H x 504V
Active	648H x 488V
Effective Image Area	
Total	4.98mm x 3.78 mm
Active	4.86 mm x 3.66 mm
Optical Format	1/3"
Pixel Size	7.5µm x 7.5µm
Video Outputs	8, 10 & 12 Bit Digital
Frame Rate	30 frames per second
Dynamic Range	
Linear Mode	62dB
Non-Linear Mode	110 dB
Electronic Shutter	Rolling reset
FPN	0.1%
PRNU	1.5%
Sensitivity	5 V/lux*s
Quantum Efficiency	27%
Fill Factor	47%
Package	48 CLCC
Single Supply	3.3 V +/-10%
Power Consumption	168 mW
Operating Temp	-40° C to 85° C

APPLICATIONS

- Security Cameras
- Machine Vision
- Automotive
- Biometrics
- IR imaging
- Barcode Scanners

CHIP BLOCK DIAGRAM



ORDERING INFORMATION

Catalog Number	Product Name	Description
4H0712	KAC- 9617-ABA-FB-AA	Monochrome, Telecentric Microlens, CLCC Package, Clear Cover Glass (no coatings), Standard Grade

Please see ISS Application Note “Product Naming Convention” (MTD/PS-0892) for a full description of naming convention used for KODAK image sensors.

Address all inquiries and purchase orders to:

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